

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/585,178
				Filing Date	October 3, 2008
				First Named Inventor	Kenneth N. RAYMOND
				Art Unit	1797
				Examiner Name	To be determined
Sheet	1	of	4	Attorney Docket Number	061818-02-5009-US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	U.S. Patent Document Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	4,855,225	08-08-1989	Fung et al.	
	A2	5,047,519	09-10-1991	Hobbs Jr., et al.	
	A3	5,049,280	09-17-1991	Raymond et al.	
	A4	5,252,462	10-12-1993	Drevin et al.	
	A5	5,820,849	10-13-1998	Schmitt-Willich et al.	
	A6	5,989,823	11-23-1999	Jayasena et al.	
	A7	6,406,297	06-18-2002	Raymond et al.	
	A8	6,515,113	02-04-2003	Raymond et al.	
	A9	6,864,103	03-08-2005	Raymond et al.	
	A10	7,018,850	03-28-2006	Raymond et al.	
	A11	7,442,558	10-28-2008	Raymond et al.	
	A12	US 2002-0128451	09-12-2002	Raymond et al.	
	A13	US 2002-0188111	12-12-2002	Raymond et al.	
	A14	US 2005-0058604	03-17-2005	Raymond et al.	
	A15	US 2008-0213917	09-04-2008	Raymond et al.	
	A16	US 2008-0213780	09-04-2008	Butlin et al.	
	A17	US 2009-0023928	01-22-2009	Raymond et al.	
	A18	US 2010-0151591	06-17-2010	Butlin et al.	
	A19	US 2010-0167289	07-01-2010	Butlin et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.	Foreign Patent Document Country Code ² Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
	B1	WO 1992/11039	07-09-1992	U.S. Army		
	B2	WO 1997/045539	04/12/1997	Kubista, Mikael et al.		
	B3	WO 2000/048991	08/24/2000	The Regents of the University of California		
	B4	WO 2008/063721	05/29/2008	The Regents of the University of California		
	B5	WO 2008/092120	07/31/2008	Lumiphore, Inc.		
	B6	CA 2,099,542	07-02-1993	Bayer Aktiengesellschaft		
	B7	EP 0578067	06-24-1993	Bayer AG		
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	C1	BLOMBERG, et al., "Terbium and rhodamine as labels in a homogeneous time resolved fluorometric energy transfer assay of the β subunit of human chorionic gonadotropin in serum", <i>Clinical Chemistry</i> , 45(6):855-861 (1999).		
	C2	BROOKER, S. et al., Chemical Abstract 2002: 593344 (2002).		
	C3	BÜNZLI, et al., "Towards materials with planned properties : dinuclear f-f helicates and d-f non-convalent podates based on benzimidazole-pyridine binding units", <i>Journal of Alloys and Compounds</i> , 249:14-24 (1997).		
	C4	CARDULLO, R. et al., "Detection of nucleic acid hybridization by nonradiative fluorescence resonance energy transfer", <i>Proc. Natl. Acad. Sci. USA</i> 85:8790-8794 (1988).		
	C5	CHEN, et al., "Lifetime- and color-tailored fluorophores in the micro-to-millisecond time regime", <i>J. Am. Chem. Soc.</i> , 122(4):657-660 (2000).		
	C6	DAHLÉN "Detection of Biotinylated DNA Probes by Using Eu-Labeled Streptavidin and Time-Resolved Fluorometry" <i>Anal. Biochem.</i> , 164:78-83 (1987).		
	C7	DE SÁ, et al., "Spectroscopic properties and design of highly luminescent lanthanide coordination complexes", <i>Coordination Chemistry Reviews</i> , 196:165-195 (2000).		
	C8	DEXTER, D.L., "A Theory of Sensitized Luminescence in Solids", <i>Journal of Chemical Physics</i> 21: 836-850 (1953).		
	C9	DICKINS, et al., "Synthesis, time-resolved luminescence, NMR spectroscopy, circular dichroism and circularly polarised luminescence studies of enantiopure macrocyclic lanthanide tetraamide complexes", <i>Chem. Eur. J.</i> , 5(3):1095-1105 (1999).		
	C10	DICKSON, et al., "Time-resolved detection of lanthanide luminescence of ultrasensitive bioanalytical assays", <i>Journal of Photochemistry and Photobiology, B: Biology</i> , 27:3-19 (1995).		
	C11	GALAUP, et al., "Mono(di)nuclear europium(III) complexes of macrobi(tri)cyclic cryptands derived from diazatetralactams as luminophores in aqueous solution", <i>Helvetica Chimica Acta</i> , 82:543-560 (1999).		
	C12	HEID, C. et al., "Real time quantitative PCR", <i>Genome Res.</i> 6:986-994 (1996).		
	C13	HEMMILÄ, et al., "Development of luminescent lanthanide chelate labels for diagnostic assays", <i>Journal of Alloys and Compounds</i> , 249:158-162 (1997).		
	C14	HIGUCHI, R. et al., "Simultaneous Amplification and Detection of Specific DNA Sequences", <i>Bio/Technology</i> 10:413-417 (1992).		
	C15	HOCHSTRASSER, R. et al., "Distance distribution in a dye-linked oligonucleotide determined by time-resolved fluorescence energy transfer", <i>Biophysical Chemistry</i> 45:133-141 (1992).		

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	C16	HOLLAND, P. et al., "Detection of specific polymerase chain reaction product by utilizing the 5'→3' exonuclease activity of <i>Thermus aquaticus</i> DNA polymerase", <i>Proc. Nat. Acad. Sci. USA</i> , 88:7276-7280 (1991).		
	C17	JOHANSSON et al., "Time Gating Improves Sensitivity in Energy Transfer Assays with Terbium Chelate/Dark Quencher Oligonucleotide Probes" <i>J. Am. Chem. Soc.</i> , 126(50): 16451-16455 (2004).		
	C18	KNIGHT, C.G., "Fluorimetric Assays of Proteolytic Enzymes", <i>Methods in Enzymology</i> 248: 18-34 (1995).		
	C19	KOSTRIKIS, L. et al., "Spectral Genotyping of Human Alleles", <i>Science</i> 279:1228-1229 (1998).		
	C20	LEE, L. et al., "Allelic discrimination by nick-translation PCR with fluorogenic probes", <i>Nucleic Acids Res.</i> 21:3761-3766 (1993).		
	C21	LEE, L. G. et al., "Seven-Color, Homogeneous Detection of Six PCR Products" <i>BioTechniques</i> 27:342-349 (1999).		
	C22	NAZARENKO, I.A. et al., "A closed tube format for amplification and detection of DNA based on energy transfer", <i>Nucleic Acids Res.</i> 25:2516-2521 (1997).		
	C23	OST, H., <i>Journal Prakt. Chem.</i> 2:110-111 (1876).		
	C24	PETOUD et al., "Stable Lanthanide Luminescence Agents Highly Emissive in Aqueous Solution: Multidentate 2-Hydroxyisophthalamide Complexes of Sm ³⁺ , Eu ³⁺ , Tb ³⁺ , Dy ³⁺ " <i>J. Am. Chem. Soc.</i> , 125: 13354-13325 (2003).		
	C25	SABBATINI, et al., "Luminescent lanthanide complexes as photochemical supramolecular devices", <i>Coordination Chemistry Reviews</i> , 123:201-228 (1993).		
	C26	SAHA, et al., "Time-resolved fluorescence of a new europium chelate complex: Demonstration of highly sensitive detection of protein and DNA samples", <i>J. Am. Chem. Soc.</i> , 115:11032-11032 (1993).		
	C27	SELVIN, P., "Fluorescence Resonance Energy Transfer", <i>Methods in Enzymology</i> 246:300-334 (1995).		
	C28	SEQUOIA, E., "Complexes of Lanthanide Perchlorates", <i>Inorganica Chimica Acta</i> , 37:1 L-449-L451 (1979).		
	C29	SOINI, et al., "Time-resolved fluorescence of lanthanide probes and applications in biotechnology", <i>CRC Critical Reviews in Analytical Chemistry</i> , 18(2):105-154 (1987).		
	C30	STEEMERS, et al., "Water-soluble neutral calix[4]arene-lanthanide complexes: Synthesis and luminescence properties", <i>J. Org. Chem.</i> , 62:4229-4235 (1997).		
	C31	STEINBERG, I., "Long-Range Nonradiative Transfer of Electronic Excitation Energy in Proteins and Polypeptides", <i>Ann. Rev. Biochem.</i> 40:83-114 (1971).		

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	C32	STENROOS, et al., "Homogeneous time-resolved IL-2IL-R α assay using fluorescence resonance energy transference", <i>Cytokine</i> 10(7):495-499 (July 1998).		
	C33	STRYER, L., "Fluorescence Energy Transfer as a Spectroscopic Ruler", <i>Ann. Rev. Biochem.</i> 47:819-846 (1978).		
	C34	SYVÄNEN et al., "Time-resolved fluorometry: a sensitive method to quantify DNA-hybrids" <i>Nucleic Acids Research</i> , 14:1017-1028 (1986).		
	C35	TYAGI, S. et al., "Molecular Beacons: Probes that Fluoresce upon Hybridization", <i>Nature Biotechnology</i> 14: 303-308 (1996).		
	C36	TYAGI, S. et al., "Multicolor molecular beacons for allele discrimination", <i>Nature Biotechnology</i> 16:49-53 (1998).		
	C37	VEIOPOULOU, et al., "Comparative study of fluorescent ternary terbium complexes. Application in enzyme amplified fluorimetric immunoassay for α -fetoprotein", <i>Analytica Chimica Acta</i> , 335:177-184 (1996).		
	C38	VICENTINI, et al., "Luminescence and structure of europium compounds", <i>Coordination Chemistry Reviews</i> , 196:353-382 (2000).		
	C39	VOSS, H. et al., "Direct genomic fluorescent on-line sequencing and analysis using <i>in vivo</i> amplification of DNA", <i>Nucleic Acids Research</i> 17:2517 (1989).		
	C40	WANG, G. et al., "Design and Synthesis of New Fluorogenic HIV Protease Substrates Based on Resonance Energy Transfer", <i>Tetrahedron Letters</i> 31: 6493-6496 (1990).		
	C41	WANG, Y. et al., "Rapid Sizing of Short Tandem Repeat Alleles Using Capillary Array Electrophoresis and Energy-Transfer Fluorescent Primers", <i>Anal. Chem.</i> 67:1197-1203 (1995).		
	C42	WHITCOMBE, D. et al., "Detection of PCR products using self-probing amplicons and fluorescence", <i>Nature Biotechnology</i> 17:804-807 (1999).		

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